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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Assignee's Docket No.:	8446
Group Art Unit:	2164
Serial No.:	09/550,192
Examiner:	S. Wasylchak
Filing Date:	April 17, 2000
Title:	Software Development System Having Particular Adaptability to Financial Payment Switches

CERTIFICATE OF MAILING

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Gregory A. Welte

REQUEST FOR RECONSIDERATION

Honorable Commissioner of Patents and Trademarks
Washington, DC 20232

Sir:

This Request is submitted in response to the Office Action mailed on May 5, 2005. Claims 1 - 13 are pending, and all stand rejected at present.

re: Office Action, Page 2, Section 5
and
Page 3, Sections 7 and 8

The Office Action objects to the term "software unit." In

response, Applicant points to the following usages of "unit" in the Specification. Those usages clearly indicate that "unit" refers to a module of software.

> If the request is in a standard message format, it would invoke Message Interaction and Message Processing 10 and 20 layers to turn the message into a usable internal format. The Message Response **Unit** 100 would work out how to deal with the message.
>
> (Specification, page 10, lines 4 - 6.)

> There is a Message Processing **Unit** that would carry out the actual application processing of the payment transaction, such as updating accounts and general ledger tables.
>
> (Specification, page 10, lines 17, 18.)

> When requests are received by an Application Server, it would firstly try to understand what the request is, and then pass the request to the Message Processing Unit for processing. After processing is complete, the Message Response **Unit** would decide what response needs to be generated.
>
> (Specification, page 10, lines 22 - 25.)

> There are five units within this layer 3:
>
> 1) Communication **Unit** 110 - this unit is configurable to specify the communication protocol that would be used between the two parties. Some of the communication protocols supported are TCP/IP, SNA and X.25. This unit supports both external communication as well as Inter-Process Communication (IPC).

2) Middleware Support **Unit** 115 - Some banks may decide to use a Middleware product to implement their payment systems. The middleware product has in-built capabilities to guarantee delivery of payment messages and provide high availability features. In addition, some middleware products also provide XA transaction processing compliance transaction manager. This unit could integrate into the Payment Switch seamlessly over the chosen communication protocol.

3) File Interface Support **Unit** 120 - this unit is responsible for interfacing with files, such as locating an input file, and opening, reading, and writing to a file. It is also responsible for sending and receiving files. Since some payment systems deal with transactions at the file level instead of the message level, it is necessary to include this unit 120 at this level. lowing easier modification of the system and maximum flexibility.

4) Timer **Unit** 125 - this unit is used to handle trigger mechanisms when a payment transaction is ready. The mechanism could also be an alarm clock that signals time for the process to initiate a read from some data source.

5) Database Interface **Unit** 135 - this is the unit where physical access of data is carried out. Programmers must program within this unit to indicate how to read the data.

All units would work together to provide **a communication layer of software** which is totally transparent to the calling software.

(Specification, page 12, lines 8 - 29.)

There are six units within the Message Interaction Layer 10. They represent different aspects of the message FAP. The entities exchanging messages would have to

understand FAP through these units.

1) Message Format **Unit** 150 - this unit defines message formats that are exchanged between entities such as Participants, Payment Switch and Payment Servers. The message format can either be an external message or an internal message. The unit 150 understands the format transformation between an external and internal message.

2) Message Response **Unit** 155 - this unit defines for each internal and external message when processed by an entity, what message response(s) is required. For instance, upon receiving a payment instruction, the Payment Switch would respond by an acknowledgment.

3) Message Synchronicity **Unit** 160 - This unit controls the message delivery and response behaviour of an entity. For the sender, whether it will wait for a response after sending a message. For a receiver, whether it will respond immediately.

4) Message Packaging **Unit** 170 - this unit is responsible for packaging external messages for transportation and interpretation. One or more external messages may be packaged into a single buffer for read/write. A message can also be a file handle to access a batch file.

5) Message Initiation **Unit** 175 - this unit defines how participants of a payment system transfer messages. The participants may work in a client/server model where the client always initiates to send messages or initiates to retrieve messages (PULL Model). The participants may work in a co-operative manner where both parties deliver messages to other participants in an asynchronous manner (PUSH Model).

6) Message Routing **Unit** 180 - this unit defines the route of a message (internal or external) once a response is to be initiated.

> Each message that travels outside of an entity would require the routing information to be associated with it so that the entity understands where to send the message. The internal route could be a server ID and the external route could be a participant ID.
>
> These units within the Message Interaction Layer 10 have a well defined interface with Message Control Module 30.
>
> (Specification, page 13, line 22 - page 14, line 21.)

> Part of the software, such as Message Translation **Unit**, may also be ported to NT 4.0 environment, but at this stage, there is no plan to have EPSW run on NT until version 2.0.
>
> (Specification, page 18, lines 9 - 11.)

See also Specification, page 15, lines 3 - 26; page 16, line 7 - page 17, line 12.

Therefore, the preceding passages of the Specification clearly indicate that the Specification uses the term "unit," as in "Message Translation **Unit**," to refer to a piece of software. MPEP § 2173.01 states:

> [A]pplicants are their own lexicographers.
>
> They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as the terms used are not used in ways that are contrary to accepted meanings in the art.
>
> . . .
>
> A claim may not be rejected solely because of the type of language used to define the

> subject matter for which patent protection is sought.

MPEP § 2173.02 states:

> CLARITY AND PRECISION
>
> (End of first paragraph) Examiners . . . should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement.
>
> . . .
>
> Definiteness of claims language must be analyzed, **not in a vacuum**, but in light of (1) the content of the particular application disclosure . . .

Finally, Applicant points out that a similar term, namely, "object" is widely used. The term "object" is used in, for example, the documentation explaining the languages C and C++. "Object" can refer to a software module. Yates uses "object" in this sense: column 17, line 16.

Applicant requests an explanation of why "object" is acceptable, and yet "unit" is not. In fact, one definition of "unit" is "a single thing, or object."

Application requests a citation of authority in support of the objection.

Further, the objection is based on a false analysis.

-- The claims refer to "software unit A" and

"software unit B."

-- The objection asserts that the **same term** is being used to refer to two **different** claim elements.

The latter statement is false. The terms are **different**. The term "software unit A" is different from "software unit B."

The same term is not being used.

On August 5, 2004, the undersigned attorney did a search for the phrase "software unit" on the PTO's web site, in patents issued since 1976. Three hundred thirty-seven hits were obtained.

For example, patent 6,771,668 states:

> In a **SOFTWARE UNIT** 802, an application layer 816, differs in software used by the system, and the data transfer protocol indicating how to transfer data on the interface is defined by a protocol such as a printer protocol or an AVC protocol.
>
> (Tenth paragraph of Detailed Description of Invention, in Internet version.)

Applicant requests an explanation of why those 337 patents can use the term "software unit," yet Applicant is prohibited from doing so.

re: Office Action, Page 2, section 4

Applicant requests a citation of authority in support of the suggestion of modifying the drawings. One reason is that it is

axiomatic that new matter cannot be added to an application. Another reason is that the undersigned attorney is aware of no requirement that the drawings must "further clarify" the claims.

"Further clarify" means that clarity already exists. Why is Applicant required to supply additional, that is, redundant, clarity ?

re: Office Action, Page 2, section 5

As to arguing patentability of new claims, Applicant states: each added dependent claim is considered patentable, because of patentability of the parent.

In addition, added claim 8 recites "c) installing the software systems into electronic payment switches." The applied references do not show the overall recitations of this claim, including this recitation.

Added claim 9 recites "installing the software systems into electronic payment switches." The applied references do not show the overall recitations of this claim, including this recitation.

Added claim 10 recites "installing the software system into an electronic payment switch." The applied references do not show the overall recitations of this claim, including this recitation.

Added claim 11 recites "installing the software system into an electronic payment switch." The applied references do not show the overall recitations of this claim, including this recitation.

Added claim 12 recites

> c) repeating steps of paragraph (b) to thereby modify a software system previously constructed; and
>
> d) installing the modified software system into an electronic payment switch.

The applied references do not show the overall recitations of this claim, including this recitation.

Added claim 13 recites:

> c) repeating steps of paragraphs (a) and (b) to thereby modify a software system previously fabricated; and
>
> d) installing the modified software system into an electronic payment switch.

The applied references do not show the overall recitations of this claim, including this recitation.

MPEP 2143.03 states:

> To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Since the claim recitations identified above have not been shown in the applied references, the 103-rejections cannot stand.

re: Office Action, Page 2, section 6

Objection was registered to the use of sub-headers.

Sub-headers are used, as in claim 8, which states:

> 8. Method according to claim 1, and further comprising the step of
>
> c) installing the software systems into electronic payment switches.

The sub-header "c)" is used to identify the paragraph, since the last paragraph in parent claim 1 is labeled "b)".

Applicant requests a citation of authority in support of the objection.

Applicant further points to US patent 5,577,734 (Etzel et al., June 10, 2003, 08/550,909), wherein claim 5 states:

> 5. Method according to claim 4, and further comprising the steps of:
>
> b) effectively transmitting a stored encrypted key from one sub-system to another,
>
> i) de-crypting the encrypted key into plain text,
>
> ii) encrypting the plain text into cypher text, using a transmission key, and
>
> iii) transmitting the cypher text on a communication channel.

See also claims 7 - 10 in Etzel.

Applicant requests an explanation of why the sub-headers are acceptable in Etzel, but not in the present case.

REAPONSE TO CLAIM REJECTIONS

All claims were rejected as obvious, based on Yates and Official Notice.

Applicant points out that the rejections of claims 2 - 13 are defective, because no teaching has been given in those claims for combining Official Notice with Yates.

Also, those rejections are defective under section 103, because the Office Action has not identified the **differences** between those claims and the prior art, as required by Graham v. Deere and MPEP § 706.02(j), which states:.

> Contents of a 35 U.S.C. 103 Rejection
>
> . . . After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action:
> . . .
>
> (B) the difference or differences in the claim over the applied reference(s),

Claim 1

Claim 1 recites:

> 1. A method of constructing a plurality of software systems, comprising the following steps:
>
> a) maintaining an inventory of software modules, which includes:
>
> i) a group of type A modules; and
>
> ii) a collection of type B modules;

b) when constructing each software system,

i) including copies of the entire group of type A modules;

ii) including copies of some or all type B modules;

and

iii) generating at least one customized module, which is a copy of neither a type A nor a Type B module.

Claim 1(b)(i) and (ii)

The Office Action relies on

(1) Official Notice

and

(2) Yates, column 18, lines 14 - 26

to show claim 1(b)(i) and (b)(ii).

These claim passages state that

1) **all** of the type A modules are included in the software system being constructed

and

2) **some or all** of the type B modules are included.

The rationale used by the Office Action is that

(1) Yates shows "including copies"

and

(2) Official Notice shows copying both the entire group of A-type modules and B-modules.

However, this rationale utterly fails to comply with section 103, for several reasons.

REASON 1

One reason is that Yates is cited to show "including copies." but the Yates passage cited by the PTO does not show that. The Yates passage refers to a "coordinator 303." The "coordinator" resolves conflicts in Yates system, as when two programs try to gain access to a single piece of data (called an object.) (Column 18, lines 24 - 29.)

The Yates passage has no relevance whatsoever to claim 1. Claim 1 recites a method of constructing a plurality of software systems. The Yates passage has no relevance to that.

REASON 2

A second reason is that merely "including copies" is insufficient, even if Yates showed that, which he does not.

Claim 1(b) states that certain "copies" are included **"when constructing each software system."** That "construction" has not been shown in Yates.

Applicant requests, under 37 CFR §§ 1.104(c)(2) and 35 U.S.C. § 132, that the PTO specifically identify "constructing each software system" in Yates.

THIRD REASON

A third reason is that the Official Notice does not show what claim 1 recites. The Official Notice is that

> Official Notice is taken that copies of the entire group of Type A modules is old and well known in the computer art.

The same type of Official Notice was given with respect to the claimed Type B modules.

But claim 1 does not recite the **mere existence** of "copies of the entire group of Type A modules." Claim 1 recites **including** the entire group of Type A modules "when constructing each software system."

Therefore, the claimed subject matter has not been shown in the prior art, even if Officially Noticed.

As to Official Notice, the undersigned attorney respectfully traverses the Official Notice, and requests a citation of evidence showing the Noticed subject matter. (See MPEP § 2144.03.)

REASON 4

A fourth reason is that the Officially Noticed subject matter

does not correspond to the claimed subject matter, for another reason. Under claim 1(a), the "modules" (Type A and B) are "maintained" in "an inventory." Then, in claim 1(b), copies are made "when constructing each software system."

Even if the Official Notice be accepted, that Notice only asserts that "copies of the entire group of type A modules" is well known. But the Notice has not shown that the Noticed copies are "maintained" in the claimed "inventory."

REASON 5

A fifth reason is that the Official Notice contains no informational content. It is a nonsense statement. Thus, no determination can be made as to whether the Officially Noticed subject matter is accurate.

Again, the Notice is this: "copies of the entire group of type A modules" is well known. How would this be verified ?

First, we would find a group of Type A modules. The undersigned attorney has a computer on his desk which contains several software programs. Let us arguendo call them a **group** of Type A modules.

Where are the "copies of the entire group" ? There are none.

Since this attempt at verification failed, and the undersigned attorney sees no other way to verify the Official Notice, it is requested that an explanation be given as to how the truth of the

Official Notice can be verified.

Claim 1(a)

POINT 1

Claim 1(a) recites maintaining type A and type B modules. The Office Action relies on identical passages in Yates to show both of these module types. Those passages are

1) The Abstract
2) Column 2, lines 57 - 65,
3) Column 4, lines 3 - 12,
4) Column 5, lines 40 - 55, and
5) Column 18, lines 1 - 13.

As to item (1), Yates' Abstract merely refers to selecting "reusable software modules." There is no reference to anything analogous to the claimed types A and B.

As to item (2), the Yates passage merely refers to selecting a "set" of software modules.

Item (3) of Yates merely refers to "adding" or "modifying" software modules.

Item (4) of Yates refers to changing a set of software modules which is used at a given time.

Item (5) of Yates states:

> Known constructions, where policies[1] are embedded in the objects, require rewriting of code in the object to change behavior.
>
> External policies allow not only changes in behavior to be achieved more easily but also more freely, and can allow extra behaviors (which are composed from combinations/permutations of a programmed set of operations) to be performed even if these were not originally anticipated.
>
> The concept of policies is such that an object must have access to a "Policy Interpreter."
>
> This can be internal or external to the object.
>
> In order to locate policies, a policy server might be provided, again either internal or external to an object.
>
> (Yates, column 18, lines 1 - 13.)

This passage plainly does not show claim 1(a), which is repeated here:

> a) maintaining an inventory of software modules, which includes:
>
> i) a group of type A modules; and
>
> ii) a collection of type B modules.

POINT 2

The Office Action, page 4, apparently asserts that the

---

[1] "Policy" is apparently jargon for a section of computer code.

"intelligent agents" in Yates qualify as the Type A and B modules. However, the Office Action has not shown **two different types** of intelligent agents. Thus, claim 1(a) has not been shown in Yates.

Claim 1(b)(iii)

POINT 1

The Office Action attempts to show this claim passage by Official Notice. In response, the undersigned attorney respectfully traverses the Official Notice, and requests a citation of evidence showing the Noticed subject matter. (See MPEP § 2144.03.)

One reason is that the Noticed subject matter contradicts previous Notices. That is, previously it was noticed that

"copies of the entire group of type A modules"

is well known,

and that

"copies of the entire group of type B modules"

is well known.

Now, it is Noticed that "copies of **neither** a type A nor a type B module" is well known. That is contradictory to the previous two Notices.

POINT 2

The Noticed subject does not correspond to claim 1(b)(iii).

That claim passage refers to an operation occurring "b) when constructing each software system."

That operation has not been shown in Yates.

POINT 3

Claim 1(b)(iii) recites "generating at least one customized module." That has not been shown in the applied art, or even noticed.

At best, the Office Action has shown that type A and type B have not been copied in the prior art.

No Teaching Given

No teaching has been given for combining the Noticed subject matter with Yates. A teaching is required.

POINT 1

The rejection fails to show that the "subject matter **as a whole**" is obvious, as required by section 103.

-- The rejection asserts that the copying of claim 1(b) is obvious because it provides "backup."

-- The rejection asserts that the **non-copying** of claim 1(b)(iii) is obvious because it provides "flexibility."

That, even if valid reasoning, is piecemeal combination, and is not allowed.

From another point of view, at best, that reasoning shows that

-- claim 1(b)(i) and (ii) are obvious, by themselves, and

-- claim 1(b)(iii) is obvious, by itself.

But it fails to show that all of claim 1(b) is obvious, **as a whole**.

It fails to show that the combination of 1(b)(i), 1(b)(ii), and 1(b)(iii) is obvious. It only shows, if valid, that sub-combinations of these three elements are obvious.

POINT 2

The rationales used do not actually lead to the claimed invention.

-- If "backup" is desired, then one does not "construct" a "software system," as in claim 1(b). One merely copies what one wishes to back up.

-- Claim 1(a) recites maintaining an inventory of software modules. Everybody knows that some type of back-up is used when storing software, unless the storage media being used are clearly indestructible. Thus, if back-up is desired, it occurs in claim

> 1(a), and there is no reason to assert that claim 1(b) is done for back-up purposes.

POINT 3

The invocation of "flexibility" is insufficient as a rationale under section 103, for several reasons.

One reason is that no definition of flexibility has been given.

A second is that no facts have been given which prove that non-copying of A and B provide flexibility.

A third reason is that the rationale is a logical impossibility. The rationale states that **doing nothing** increases flexibility. That makes no sense.

Claim 2

Claim 2 recites:

> 2. Method according to claim 1, wherein each system constructed performs the following functions:
>
> 1) processing of the content of messages;
>
> 2) packaging of messages into packets for transport out of the system;
>
> 3) transfer of messages into, and out of, the system; and
>
> 4) coordination of functions (1), (2),

and (3).

CLAIM 2(1)

The Office Action relies on five passages in Yates to show claim 2(1), namely:

column 1, lines 1 - 5;

column 2, lines 57 - 65;

column 4, lines 3 - 12;

column 16, lines 11 - 23; and

column 5, lines 33 - 35.

However, claim 2(1), together with its context, states that

> . . . each system constructed performs the following functions:
>
> 1) processing of the content of messages.

The first passage cited in Yates says nothing about whether "each system constructed" performs a specific function, let alone the claimed function of processing messages.

The second passage of Yates states that "A reconfigurable software agent **MAY** comprise . . ." That is inconsistent with claim 2(1). If claim 1(1) were shown in that passage, then the passage would state that the reconfigurable software agent "**MUST** comprise," or equivalent.

Restated, claim 2(1) is **mandatory**. Each system constructed

must perform what claim 2(1) states.

The third passage of Yates merely lists software modules which **may** be available. Again, that does not show claim 2(1).

The fourth passage of Yates merely lists some functions which a "service retailer domain 103" performs. That does not show claim 2(1).

The fifth passage of Yates merely discusses reconfiguration of his software modules. That does not show claim 2(1).

Therefore, the mandatory language of claim 2 ("**each** system constructed performs the following functions . . .") has not been shown in Yates.

CLAIM 2(2)

The Office Action relies on two passages in Yates to show claim 2(2), namely:

column 14, lines 37 - 51; and

column 18, lines 9 - 13.

Claim 2(2) recites:

> . . . wherein **each system constructed** performs the following functions:
>
> . . .
>
> 2) packaging of messages into packets for transport out of the system;

The first cited passage in Yates merely refers to a type of

communication. But it does not state that "each system constructed . . ." possesses that communication. Thus, even if the type of communication shown in Yates corresponds to claim 2(2), claim 2(2) cannot be read out of context.

The second passage of Yates states:

> The concept of policies is such that an object must have access to a "Policy Interpreter." This can be internal or external to the object. In order to locate policies, a policy server might be provided, again either internal or external to an object.
>
> (Column 18, lines 9 - 13.)

The second passage clearly does not relate to claim 2(2).

Therefore, the mandatory language of claim 2 ("**each** system constructed performs the following functions . . .") has not been shown in Yates.

CLAIM 2(3)

To show claim 2(3), the Office Action cites Yates, column 5, lines 40 - 55. Claim 2(3) recites:

> . . . wherein each system constructed performs the following functions:
>
> . . .
>
> 3) transfer of messages into, and out of, the system.

The cited passage in Yates says absolutely nothing about transferring messages into and out of the system, together with requiring that "each system constructed" does that transfer.

The Office Action also cites the Abstract of Yates. The Abstract simply does not show claim 2(3).

The Office Action also cites Yates, column 17, lines 27 - 37. That passage has no relevance whatever to the claim passage in question. That passage discusses how Yates responds to a type of incoming data.

Therefore, the mandatory language of claim 2 ("**each** system constructed performs the following functions . . .") has not been shown in Yates.

CLAIM 2(4)

Claim 2(4) recites:

> . . . wherein each system constructed performs the following functions:
>
> . . .
>
> 4) coordination of functions (1), (2), and (3).

As explained above, claim 2(1), (2), and (3) are not found in Yates. Thus, the passage in question, namely, column 4, lines 3 - 12, cannot refer to "coordination" of the functions of those parts of the claim.

In addition, the passage in question (column 4, lines 3 - 12) does not refer to the other passages cited in Yates to show the other parts of claim 2. Thus, it would seem conclusive that the passage in question (column 4, lines 3 - 12) does not show the claimed coordination, since it does not refer to coordinating elements in the other passages cited.

Therefore, Applicant submits that claim 2 is not shown in Yates.

ADDITIONAL POINT

The rejection was stated to be obviousness-type. (Office Action, page 3.) But only a single reference was used, and is alleged to show all claim elements.

The rejection is invalid.

Claim 3

Claim 3 recites:

> 3. Method according to claim 2, wherein functions (3) and (4) are performed using **type A modules** exclusively.

"Type A modules" are those recited in claim 1. Claim 1 states that **all** type A modules in the group are included in every system constructed.

Claim 3 depends from claim 2, which defines "functions (2) and

(3)." The passages cited in Yates to show those functions (2) and (3) of claim 2 do not refer to "type A modules."

In addition, one passage used to reject claim 3 is column 18, lines 1 - 13. That passage of Yates relied on by the PTO is here set forth:

> Known constructions, where policies[2] are embedded in the objects, require rewriting of code in the object to change behavior.
>
> External policies allow not only changes in behavior to be achieved more easily but also more freely, and can allow extra behaviors (which are composed from combinations/permutations of a programmed set of operations) to be performed even if these were not originally anticipated.
>
> The concept of policies is such that an object must have access to a "Policy Interpreter."
>
> This can be internal or external to the object.
>
> In order to locate policies, a policy server might be provided, again either internal or external to an object.
>
> (Yates, column 18, lines 1 - 13.)

Plainly, this passage does not show claim 3.

The Office Action also relies on Yates, column 17, lines 16 - 21. That passage was also used to reject claim 2(4), which is different from claim 3.

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[2] "Policy" is apparently jargon for a section of computer code.

That passage merely states that an "agent" is constructed of three "object types." That does not show claim 3.

Claim 4

Claim 4 recites:

> 4. Method according to claim 3, wherein function (1) is performed using a combination of type A, type B, and customized modules.

The Office Action relies on two passages in Yates to show claim 4, namely,

column 4, lines 26 - 35 and

column 18, lines 1 - 13.

The latter passage was cited in full in the previous section, concerning claim 3, and plainly does not show claim 4, as a side-by-side comparison indicates.

The former passage states that "at least one of the software agents" is provided with certain functionality. If the "software agent" is considered to correspond to the "system" of the claims, and the undersigned attorney sees no other element in the passage which can correspond to the "system," then claim 4 is clearly not shown. Claim 4, through its parent claim(s), states that "each system constructed" is equipped with the enumerated functions. The passage in question merely states that "at least one software agent" is equipped with certain functions.

That does not show claim 4.

Claim 5

Claim 5 recites:

> 5. Method according to claim 4, wherein function (2) is performed using a combination of type A, type B, and customized modules.

The identical passages in Yates cited to show claim 4 were cited to show claim 5.

One passage is cited in full, in the section above regarding claim 3. A side-by-side comparison clearly indicates that the passage does not show claim 5.

The other passage (column 4, lines 26 - 35) states that "at least one of the software agents" is provided with certain functionality. If the "software agent" is considered to correspond to the "system" of the claims, and the undersigned attorney sees no other element in the passage which can correspond to the "system," then claim 5 is clearly not shown.

Claim 5, through its parent claim(s), states that "each system constructed" is equipped with the enumerated functions. The passage in question merely states that "at least one software agent" is equipped with certain functions.

That does not show claim 5.

Claim 6

Claim 6(a)

Applicant points out that claim 6(a) recites:

> a) fabricating a collection of software systems, **each of which contains**

and then lists four types of module (which are "contained").

Restated, claim 6(a) states that every "software system" in the "collection" contains (at least) the four modules listed in 6(a)(i) through (a)(iv).

The Office Action cites two passages in Yates to show this, namely,

1) column 2, lines 38 - 65

and

2) column 4, lines 13 - 65.

However, those passages contain nothing more than generalized statements indicating that, in different situations, systems may be designed which are different.

That is **directly contrary** to the claim recitations in question. One reason is that claim 6(a) states that every software system contains four specific modules. Thus, in that respect, every software system is **identical**.

That is contrary to the cited passages in Yates.

Claim 6(b)

Claim 6(b) states that all of the "software systems" of claim 6(a) will contain two elements, namely (1) identical CONTROL modules and (2) identical COM_MOD modules. The Office Action relies on two passages in Yates to show this.

One passage is column 4, lines 26 -35. However, that passage merely states that "at least one . . . software agent" is equipped with certain functionality. That does not show the claim recitations in question, and is actually inconsistent with it.

It is inconsistent because the Yates-passage only focuses on **ONE** software agent, and lists some properties of that agent. It fails to identify a **GROUP** of agents. Claim 6 refers to properties of a "collection of software systems." Yates' discussion of a **SINGLE** software agent does not show the properties of a **GROUP** as in claim 6.

The other passage relied on by the PTO is Yates column 18, lines 1 - 13. That passage is set out verbatim above, and clearly does not show claim 6(b)(i) and (b)(ii).

Claim 6(b)(iii)

Applicant points to claim 6(b)(iii), which is repeated here:

> iii) fabricating PAK_MOD modules in all systems, such that:

A) copies of a software unit A is contained in every PAK_MOD module;

B) some PAK_MOD modules contain a software unit B with no unit C; and

C) some PAK_MOD modules contain a software unit C with no unit B.

The undersigned attorney has examined the passages in Yates which are cited to show these recitations, and cannot locate the recitations in those passages. [Actually, the passages used by the PTO are the same as used for claim 6(b)(i) and (b)(ii).]

Further Consideration of Claim 6

Claim 6(a)(iii) refers to a "communications module (COM_MOD) which accepts and delivers message packets." Yates, column 14, line 49 et seq., refers to a Manager which uses data packets for file transfer. It is Assumed arguendo that Yates' Manager shows the recited COM_MOD.

Claim 6(b)(ii) states that, during fabrication of software systems, "fabricating identical COM_MOD modules in all systems." The Office Action relies on two passages in Yates to show this.

One passage is column 4, lines 26 - 35. However, that passage, in essence, states that each "software agent" is "customized" for a specific purpose. Thus, the agents will be different. That does not state, or even imply, "identical COM_MOD modules in all" agents.

The second passage is column 18, lines 1 - 13. That passage was set forth verbatim above. That passage merely refers to a process of modifying software. That does not state, or even imply, "identical COM_MOD modules in all" agents.

In fact, it would tend to show the opposite. If software (ie, the COM_MOD modules) is modified, then for "identical COM_MOD modules" to exist in all agents, all those modules must be modified in **the same manner**. That has not been shown in Yates.

Claim 7

Claim 7 recites:

> 7. Method according to claim 6, and further comprising the following step:
>
> iv) fabricating PROC_MOD modules in all systems, such that:
>
> A) copies of a software unit D is contained in every PROC_MOD module;
>
> B) some PROC_MOD modules contain a software unit E with no unit F; and
>
> C) some PROC_MOD modules contain a software unit F with no unit E.

The same two passages in Yates, cited to show claims 4 and 5 were cited to show (A), (B), and (C) of claim 7(iv). Those passages are

column 4, lines 26 - 35 and

column 18, lines 1 - 13.

The latter passage is here repeated:

> Known constructions, where policies[3] are embedded in the objects, require rewriting of code in the object to change behavior.
>
> External policies allow not only changes in behavior to be achieved more easily but also more freely, and can allow extra behaviors (which are composed from combinations/permutations of a programmed set of operations) to be performed even if these were not originally anticipated.
>
> The concept of policies is such that an object must have access to a "Policy Interpreter."
>
> This can be internal or external to the object.
>
> In order to locate policies, a policy server might be provided, again either internal or external to an object.
>
> (Yates, column 18, lines 1 - 13.)

A side-by-side comparison between each recitation in claim 7 and the cited passage clearly shows that the cited passage does not show the claim elements. For example, claim 7(iv)(C) states:

> C) some PROC_MOD modules contain a software unit F with no unit E.

The absence of the unit E is not discussed in this passage. That,

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[3] "Policy" is apparently jargon for a section of computer code.

by itself, is sufficient to preclude the rejection.

The other passage (column 4, lines 26 - 35) states that "at least one of the software agents" is provided with certain functionality. If the "software agent" is considered to correspond to the "system" of the claims, and the undersigned attorney sees no other element in the passage which can correspond to the "system," then claim 7 is clearly not shown.

Claim 7, through its parent claim(s), states that "each system constructed" is equipped with the enumerated functions. The passage in question merely states that "at least one software agent" is equipped with certain functions.

That does not show claim 7.

General Observations on Yates

If an attempt is made to apply Yates to claim 1, the undersigned attorney believes that the only possible elements in Yates which apply to (1) the "software system," (2) the type A modules, and (3) the type B modules of claim 1 are the following, respectively:

-- Yates' "agents" (corresponding to the "software system"),

-- Yates' SIBBs, Service Independent Building Blocks (corresponding to the type A modules), and

-- Yates' "adaptors" (corresponding to the type B modules.)

(See column 17, lines 12 - 22.)

However, several problems arise. Claim 1(b)(i) states that "the entire group" of the type A modules is included in the "software system." Yates expressly states that is not so. He states that the SIBBs in the "agents" change over time. (Column 18, lines 42 - 48.) Thus, as a minimum, the "entire group" of the SIBBs does not remain constant.

And the undersigned attorney can find no statement that "the entire group" of the SIBBs is given to each "agent" in the first place. Again, claim 1 is not present in Yates.

Another problem arises in connection with claim 3, which states:

> 3. Method according to claim 2, wherein functions (3) and (4) are performed using type A modules exclusively.

"Functions (3) and (4)" of claim 2 refer to transfer of messages into, and out of, the system. Yates' SIBBs do not do that. His Communications Session Manager does that. (Column 14, line 49 et seq.) That Manager does not appear to be a SIBB.

Therefore, Applicant requests that the "group of type A modules" be identified in Yates.

Claims 8 - 11

All these claims recite installing "the software system," which was "constructed," into an "electronic payment switch." The term "electronic payment switch" does not appear in Yates.

Thus, the PTO must provide an explanation as to how the elements relied on in Yates correspond to the claimed "electronic payment switches."

Claims 12 and 13

Claim 12 recites:

> 12. Method according to claim 1, and further comprising:
>
> c) repeating steps of paragraph (b) to thereby modify a software system previously constructed; and
>
> d) installing the modified software system into an electronic payment switch.

The Office Action asserts that the fact that something in Yates is "reusable" and has "reconfigurability" shows claim 12(c). (Office Action, page 9.) However, that is insufficient to show claim 12(a). One reason is that the entity in question in Yates has not been identified.

Another reason is that even if the entity in Yates corresponds to the claimed "software system," the fact that this system in Yates is "reusable" and has "reconfigurability" does not show claim

12(a).

-- Claim 12(a) states that specific steps are **repeated**. It is not necessary to repeat those steps to attain something which is "reusable" and has "reconfigurability."

-- Restated, you can attain "reusability" and "reconfigurability," in other ways. For example, you can increase horsepower in a car by boring out the cylinders. You can repeat that boring, to further increase horsepower.

On the other hand, you can increase horsepower in a completely different way, as by adding a turbocharger.

Therefore, in general, you can "re-configure" a device in different ways. The fact that a reference discusses reconfiguration does not imply a specific way of reconfiguring.

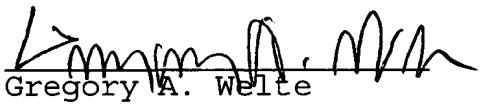
This applies to claim 13.

Conclusion

Applicant requests that the rejections to the claims be reconsidered and withdrawn.

Applicant expresses thanks to the Examiner for the careful consideration given to this case.

Respectfully submitted,



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